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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,560

03/17/2004

Mark Walter Fagan

2003-0571.02

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12/28/2004

LEXMARK INTERNATIONAL, INC.
INTELLECTUAL PROPERTY LAW DEPARTMENT
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LEXINGTON, KY 40550-0999

EXAMINER

NOLAN JR, CHARLES H

ART UNIT

PAPER NUMBER

2854

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,560

Applicant(s)

FAGAN ET AL.

Examiner

Charles H Nolan, Jr.

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-17-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-23,26-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Miquel et al. (6,565,171 based on prior published US Patent application 2003/0016255 on Jan. 23,2003).

With respect to Claims 1,8-9,23, Miquel teaches the accelerating and printing steps in column 7, lines 63-64 and the changing step in column 8, lines 1-43. The Examiner has interpreted the phrase "phase shift" to mean that the disturbance is spread out during the printing pass instead of being concentrated in certain areas because of the native frequency of the carriage which is consistent with the purpose of the instant invention and the purpose of Miquel's invention as taught in column 9, lines 23-35 and the Abstract. With respect to Claims 2,10,17,26, Miquel teaches the rate of acceleration based on the frequency of the printhead carrier disturbance (temporal frequency) in the Abstract. With respect to Claims 3,11,27, Miquel teaches the first position is a carrier start position in column 7, lines 62-63. It is noted that the first pass as taught by Miquel begins at a start position as broadly recited in this claim. With respect to Claims 4-5,12-13,28-29, Miquel teaches that the rate of acceleration (acceleration curve to achieve a certain speed) can be greater or less than a previous rate of acceleration in column 8,

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lines 1-25. With respect to Claims 6,14,18, Miquel teaches that the carriage may be accelerated to the same steady state speed at least for alternative passes in the first direction in column 8, lines 26-33. With respect to Claim 7, Miquel teaches the bi-directional printing in column 1, lines 60-66. With respect to Claim 21, Miquel teaches the printhead carrier system 100 in figure 1, the controller 404 in figure 4, the accelerating and printing steps in column 7, lines 63-64 and column 8, lines 1-43. With respect to Claim 22, Miquel teaches the feed roller unit function in column 5, line 34. With respect to Claims 19-20,31-32, it is inherent that the printhead oscillates from one fixed position to another while bi-directional printing is being performed. With respect to Claim 33, Miquel teaches that the accelerating and printing steps are repeated in column 8, lines 26-33. With respect to Claim 15, Miquel teaches the first recited defining step in figure 1, the second recited defining step inherent in figure 1 and the accelerating steps in column 8, lines 1-43. With respect to Claim 16, Miquel teaches that the printable area (including the print start position) is printed at a steady speed of alternative speeds taught in column 8, lines 1-10.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

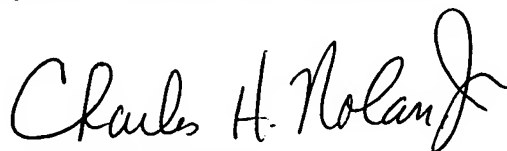
4. Claims 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miquel in view of Kanemitsu (5,547,295).

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With respect to Claim s 24-25, Miquel teaches all the claim limitations except that the phase shift is about $\frac{1}{2}$ of the printhead carrier disturbance. Kanemitsu teaches that the phase shift is about $\frac{1}{2}$ of the printhead carrier disturbance in the Abstract. It would have been obvious to one of ordinary skill in the art to incorporate the phase shift of $\frac{1}{2}$ of the printhead carrier disturbance into the invention of Miquel because this is where the "acceleration of the carriage abruptly increases from 0 to C and returns to 0" as taught by Kanemitsu in column 4, lines 20-25

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles H Nolan, Jr. whose telephone number is 571-272-2171. The examiner can normally be reached on Monday through Thursday 8:00 AM to 6:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CHN



Charles H Nolan, Jr.
Primary Examiner
Art Unit 2854